



# *2000 - 2001 Drought*

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# Meteorological Conditions

- 1938 was the driest calendar year on record District-wide since 1915
  - 38.92 inches of rainfall
- Average rainfall District-wide:
  - 52 inches
- Year 2000 Rainfall:
  - 39.44 inches (76% of normal)
    - Comparable to 1961 & 1927

# Meteorological Conditions

- Preliminary estimated drought return frequencies:
  - Upper Kissimmee: 1 in 75 (1.3% annual)
  - Lower Kissimmee: 1 in 100 (1% annual)
  - Lake Okeechobee: 1 in 75 (1.3% annual)
  - East Caloosahatchee: 1 in 30 (3% annual)
  - EAA (East): 1 in 25 (4% annual)
  - EAA (West): 1 in 10 (10% annual)
  - Palm Beach County: 1 in 15 (7% annual)

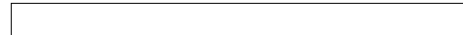
# Meteorological Conditions

- Early dry season rainfall is 30% of average
- December Rainfall : District-wide rainfall was 51% of average
  - Normal Month Avg. = 1.91 inches
  - Actual Month Total = 0.98 inches
- January Rainfall : District-wide rainfall was 28% of average
  - Normal Month Avg. = 2.26 inches
  - Actual Month Total = 0.64 inches

# Climate Prediction Center

## U.S. Drought Monitor

- Moderate to Extreme drought conditions exist across most of the District as a result of deficit precipitation



# Hydrologic Conditions

- ① Kissimmee Upper Chain & Lake Istokpoga
  - All lakes well below normal for this time of year and falling
- ② Lake Okeechobee
  - Near record daily low water levels and continuing to fall
  - Navigation and water shortage concerns
- ③ Water Conservation Areas
  - Near normal water levels for this time of year, but falling
- ④ Lower East Coast
  - Near normal groundwater levels for this time of year, but falling
- ⑤ Lower West Coast
  - Near record low groundwater levels - continuing to fall
  - Estuary salinity rising
- ⑥ Wildfire potential high across most of the District

## STA WATER CONDITIONS - FEBRUARY 2001

### STA-5

Half of the STA is dry;  
receiving supplemental  
water to protect  
treatment vegetation in  
the most sensitive  
cell.15



### STA-1W

Water depths  
dropping, but  
adequate.



### STA-6

The STA is dry;  
no adverse  
impact  
expected.



### STA-2

Water depths  
are dropping,  
but adequate.



Note: STA-1E and STA-3/4 are not operational yet.

# Drought Contingencies

- District operations managed through the activation of the Emergency Operations Center
  - Executive-in-Charge: Joseph Taylor, P.E., Deputy Executive Director
- Water Use Restrictions
- “Forward Pumping”
  - SFWMD funded installation of 14 temporary pumps (~\$3 million)
  - Located along southern perimeter of Lake Okeechobee
  - Provide some supplemental water to Lower East Coast and EAA at very low lake stages
  - Installation on-going
- Navigation Restrictions
  - U.S. Army Corps of Engineers - Okeechobee Waterway
- SFWMD funded Public Service Announcements (~\$300,000)
- Lake Istokpoga Environmental Drawdown (~\$3 million)



# Water Use Restrictions

## Lake Okeechobee

- Phase III water restrictions in place for agricultural uses in the Lake Okeechobee Service Area
  - ~ 50% of normal demand available
  - Releasing weekly agricultural water supply allocation from the lake 3 days per week: Monday, Wednesday & Friday
  - No agricultural water supply releases from the lake Tuesdays, Thursdays or over the weekend.

# Water Use Restrictions

- Phase II Water Use Restrictions in place...
  - Palm Beach,
  - Monroe,
  - Miami-Dade,
  - Broward,
  - Collier,
  - Hendry,
  - Lee,
  - Orange, and
  - parts of St. Lucie, Glades, Charlotte, and Okeechobee counties
- First time in District history that regional Phase II restrictions have been put in place

# Water Use Restrictions

- Phase II water restrictions
  - Target: 30% reduction in water use
  - limit lawn watering and car washing to 2 days per week:
    - Wednesdays and Saturdays from 4 a.m. to 8 a.m. for addresses that end in an odd number;
    - Thursdays and Sundays, 4-8 a.m., for even-number addresses.
  - The restrictions apply to water supplied from utilities, individual wells and surface water sources such as canals, lakes, ponds and rivers.
  - Public water system pressure reductions to 45 psi

# Drought Outlook

- U.S. Climate Prediction Center (CPC) reports that February 2001 through March 2001 has a slightly higher probability of below normal rainfall
- CPC indicates that mid-dry season rainfall has a slightly higher probability of below average rainfall
- Late dry season is forecast to have a equal probability of above, below or average rainfall
- Drought threat to the most of the District is expected to persist at least through April 2001

# Hydrologic Outlook

- Lower East Coast groundwater levels expected to fall
  - Supplemental water from the Water Conservation Areas may be supplied in February
- Water Conservation Areas are expected to fall below their minimum levels for water supply withdrawals by mid to late dry season
  - Shifts demand to Lake Okeechobee for supplemental water
- Lake Okeechobee is expected to reach all-time *record* low level by April or May
  - Record level (1981): 9.75 ft. NGVD
  - Possible low level (2001): 8.5 - 9.0 ft NGVD

# Drought Management

- SFWMD will continue to deal with the drought through the agency's Emergency Operations Center
- Continue close cooperation with other water management districts, state agencies local governments, utilities, communities and users

